MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017/2018

BFN3084 – INTERNATIONAL FINANCE

(All sections / Groups)

27 OCTOBER 2017
3.00 p.m. - 5.00 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of **4 pages** with **4 Questions** only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please print all your answers in the Answer Booklet provided.

QUESTION 1 (20 MARKS)

A U.S. firm holds an asset in Malaysia and faces the following scenario:

	State 1	State 2	State 3
Probability	30%	40%	30%
Spot rate (RM/$)	RM4.28/$ ($0.234/RM)	RM4.00/$ ($0.25/RM)	RM3.80/$ ($0.263/RM)
P* **(RM)**	2,000,000	2,500,000	3,000,000
***P* ($)**	467,289.72	625,000	789,473.68

where,

P^* = pound sterling price of the asset held by the U.S. firm
P = dollar price of the same asset

a. What is the expected value of the investment in U.S. dollars?

(2 marks)

b. What is the variance of the exchange rate?

(4 marks)

c. What is the firm' "exposure" (i.e. the regression coefficient beta) to the exchange rate uncertainty?

(4 marks)

d. Can most of the volatility of the dollar value of the Malaysian asset be removed by hedging exchange risk?

(10 marks)

QUESTION 2 (20 MARKS)

Briefly discuss the various types of counter-trade.

Continued...

QUESTION 3 (20 MARKS)

Currently, the spot exchange rate is \$1.32/£ and the three-month forward exchange rate is \$1.35/£. The three-month interest rate is 1.6% per annum in the U.S. and 1% per annum in the U.K. Assume that you can borrow as much as \$1,320,000 or £1,000,000.

a. Determine whether the interest rate parity (IRP) is currently holding.

(5 marks)

b. If the IRP is not holding, how would you carry out covered interest arbitrage? Show all the steps and determine the arbitrage profit.

(10 marks)

c. Explain how the IRP will be restored as a result of covered arbitrage activities.

(5 marks)

QUESTION 4 (20 MARKS)

You plan to visit London, U.K. in three months to have a summer vacation. You expect to incur the total cost of £5,000 for lodging, meals and transportation during your stay. As of today, the spot exchange rate is RM5.56/£ and the three-month forward rate is RM5.6/£. You can buy the three-month call option on £ with the exercise rate of RM5.7/£ for the premium of RM 0.5 per £. Assume that your expected future spot exchange rate is the same as the forward rate. The three-month interest rate is 2.8 percent per annum in Malaysia and 1 percent per annum in the U.K.

a. Calculate your expected ringgit cost of buying £5,000 if you choose to hedge via call option on £.

(10 marks)

b. Calculate the future ringgit cost of meeting this £ obligation if you decide to hedge using a forward contract.

(2 marks)

c. At what future spot exchange rate will you be indifferent between the forward and option market hedges?

(4 marks)

d. Illustrate the future ringgit costs of meeting the £ payable against the future spot exchange rate under both the options and forward market hedges.

(4 marks)

Continued...

QUESTION 5 (20 MARKS)

a. Describe the difference between a swap broker and a swap dealer. What is the necessary condition for a fixed-for-floating interest rate swap to be possible?

(5 marks)

b. Company A is a AAA-rated firm desiring to issue five-year FRNs. It finds that it can issue FRNs at six-month LIBOR + 0.5 percent or at three-month LIBOR + 0.5 percent. Given its asset structure, three-month LIBOR is the preferred index. Company B is an A-rated firm that also desires to issue five-year FRNs. It finds it can issue at six-month LIBOR + 1.0 percent or at three-month LIBOR + 0.7 percent. Given its asset structure, six-month LIBOR is the preferred index. Assume a notional principal of $15,000,000. Determine the quality spread differential (QSD) and set up a floating-for-floating rate swap where the swap bank receives 0.1 percent and the two counterparties share the remaining savings equally.

(15 marks)

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